

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A central control system of air conditioners, comprising:
 - a ~~multi-type~~ multi-unit type air conditioning system including a plurality of indoor units for air conditioning installed in rooms of a building and an outdoor unit for circulation of refrigerant, said outdoor unit being shared by the plurality of indoor units;
 - a power meter, connected to the outdoor unit, for measuring power consumption of the ~~multi-type~~ multi-unit type air conditioning system when the ~~multi-type~~ multi-unit type air condition system operates; and
 - a central ~~control-unit~~ controller for calculating respective power consumption of the indoor units based on both the power consumption measured by the power meter and operation information of the ~~multi-type~~ multi-unit type air condition system, and for displaying the calculated respective power consumptions of the indoor units,

wherein said central controller includes:

 - an air conditioner communicator for transmitting and receiving signals to and from the multi-unit type air conditioning system and the power meter via a communication line;
 - a database for storing equipment information of the indoor and outdoor units of the multi-unit type air conditioning system;
 - an air conditioner controller configured to control operations of the multi-unit type air conditioning system and to allow display of respective power consumptions of the

indoor units calculated based on the current operation information of the multi-unit type air conditioning system and the equipment information stored in the database;

an electricity charge calculator configured to calculate respective electricity charges of the indoor units based on the respective power consumptions of the indoor unit units calculated by the air conditioner controller; and

a display configured to display the respective electricity charges of the indoor units calculated by the electricity charge calculator or displaying the respective electricity charges of the indoor units calculated by the air conditioner controller.

2. (Original) The system according to claim 1, wherein the indoor and outdoor units are connected via an RS-485 protocol based communication line.

3. (Original) The system according to claim 1, wherein the power meter is connected with the outdoor unit via an RS-485 protocol based communication line.

4. (Currently Amended) The system according to claim 1, further comprising a bridge for mutual protocol conversion of signals transmitted and received between the central ~~control unit~~ controller, based on an Ethernet protocol, and the outdoor unit and the power meter, based on an RS-485 protocol.

5. (Canceled)

6. (Currently Amended) The system according to claim ~~[[5]]~~ 1, wherein the central controller further includes a control program operator for executing a control program, said control program interfacing with a user for controlling operations of the ~~multi-type~~ multi-unit type air conditioning system and for managing power thereof.

7. (Currently Amended) The system according to claim 6, wherein the control program operator includes a power division module whereby current power

consumption, monthly power consumption and accumulated power consumption of the ~~multi-type~~ multi-unit type air conditioning system, and electricity charges calculated respectively for the indoor units thereof are displayed.

8. (Currently Amended) The system according to claim 7, wherein the control program operator further includes:

a control module for controlling operations and monitoring states of the ~~multi-type~~ multi-unit type air condition system ~~and monitoring states thereof~~;

a schedule management module for managing an operating schedule of the ~~multi-type~~ multi-unit type air conditioning system; and

a peak power management module for managing peak power consumption of the ~~multi-type~~ multi-unit type air condition system for ~~allowing~~ controlling the peak power consumption when the multi-type air conditioning system operates to be ~~limited~~ below a predetermined level.

9. (Currently Amended) The system according to claim ~~[[5]]~~ 1, wherein the central ~~control-unit~~ controller further includes an input ~~unit~~ that receives a control command for controlling operations of the ~~multi-type~~ multi-unit type air conditioning system and transfer the received control command to the air conditioner controller.

10. (Currently Amended) The system according to claim 9, wherein the input ~~unit~~ includes a touch screen ~~allowing~~ configured to accept touch input, said display ~~unit~~ being integrated into said touch screen.

11. (Currently Amended) The system according to claim ~~[[5]]~~ 1, wherein the central ~~control-unit~~ controller includes an Internet modem configured for connection with an ~~external~~ Internet.

12. (Currently Amended) A method for operating a central control system of air conditioners, said central control system including a central ~~control unit capable of~~ controller configured for performing central control of a ~~multi-type~~ multi-unit type air conditioning system including a plurality of indoor units and an outdoor unit connected thereto via a network, said method comprising ~~the steps of:~~

[[a))] ~~by the central control unit, receiving~~ receiving, by the central controller, information of power consumption of the ~~multi-type~~ multi-unit type air conditioning system from a power meter, ~~said~~ the power consumption being measured by the power meter;

[[b))] receiving, via the outdoor unit, operation information of the ~~multi-type~~ multi-unit type air conditioning system ~~via the outdoor unit;~~

[[c))] calculating respective power consumption of the indoor units based on the operation information of the ~~multi-type~~ multi-unit type air conditioning system and equipment information previously stored in a database; and

[[d))] displaying the calculated respective power consumption of the indoor units, wherein the displaying includes:
calculating respective electricity charges of the indoor units based on the
calculated respective power consumptions of the indoor units; and
displaying the calculated respective electricity charges of the indoor units.

13. (Canceled)

14. (New) The method according to claim 12, further comprising connecting the indoor units and the outdoor unit via an RS-485 protocol based communication line.

P25332.A04

15. (New) The method according to claim 12, further comprising connecting the power meter with the outdoor unit via an RS-485 protocol based communication line.

16. (New) The method according to claim 12, further comprising converting signals transmitted and received between the central controller, based on an Ethernet protocol, and the outdoor unit and the power meter, based on an RS-485 protocol.